U.S. Ocean Action Plan

GULF OF MEXICO ALLIANCE

Proposal for a

Gulf of Mexico Priority Habitat Information System (PHINS)

A State/Federal Partnership to provide users with information and foundation geospatial data supporting implementation of the Alliance Action Plan

Federal Working Group Meeting
August 23, 2006
National Wetlands Research Center, Lafayette, LA

www.gulfofmexicoalliance.org

Basic Principles

- Distributed System

- Metadata Driven

- Based on Web Services concept

- Data support Alliance Focus Areas

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What's the Problem?

- Significant capability in existing web sites, particularly in National Map and Geospatial One Stop

- Probably can get much of the information one needs, but have to go to several sites and master different interfaces

- Easy to succumb to web ADD

- No thematic focus on the five GoMex Alliance focus areas

- Current GoMex Alliance web site a bust – needs major design and architecture improvements

- Improved GoMex web site could provide a portal to many different audiences

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Objectives

For the five GoMex Alliance focus areas:

- improve state, local, (and federal?) resource management decisionmaking through the increased awareness and use of spatial data

- Make maximum use of existing information and project activities by integrating activities and reducing duplication of effort

- Link state and local project info, reports, and spatial data into a Gulf wide information access and delivery system

Promote more collaboration among federal agency GIS groups

Identify and spread awareness of "best practices"

Identify potential technology development partnership efforts

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Targeted Users

- State and local resource managers who, for a geographic area, want to:
  - know what current (and past) fed/state/local projects have been conducted
  - know what reports, literature, posters, etc.
  - access and download spatial data and reports
- To better understand the landscape (scale and scope) of one of the five GoMex Alliance focus areas

- Researchers and academics

- Interested public

- K-12 teachers and students??

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Tasks

- Write big vision
- Assess capabilities and best features of existing web sites
- Define guidance for agencies – lessons learned/ best practices/ priority data sets
- Design cardboard portal web site
- Coordiante with existing efforts – how do we bring them on board
- Get states and local entities on board
- Identify pilots in each state for local data
- Explore how to get user input – community workshops

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Test Drive Some Sample Questions

- Extent of wetlands loss across the gulf

- What wetlands restoration projects are currently being conducted across the Gulf

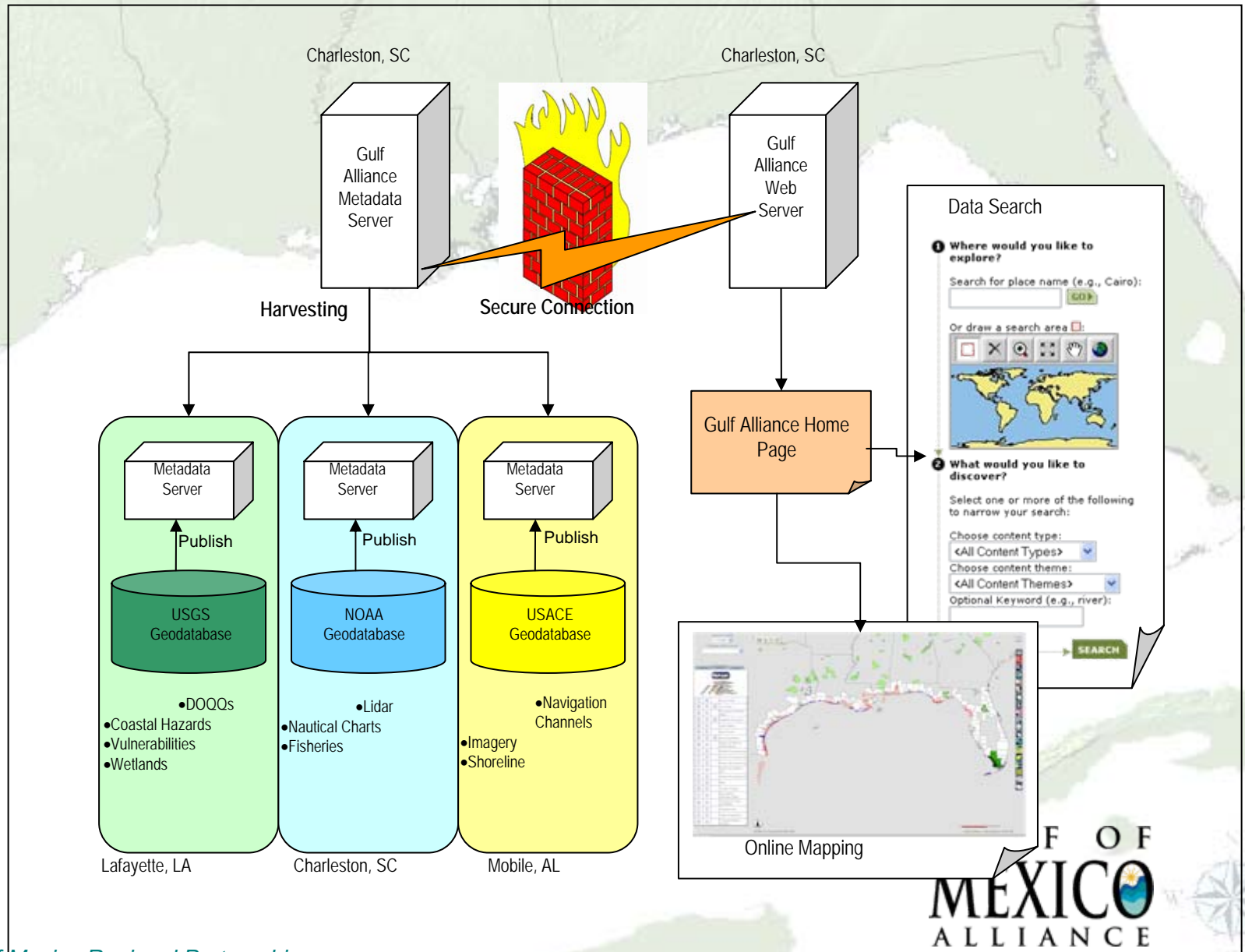- What areas are highest priorities for improving storm surge enhancements

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urls

http://gos2.geodata.gov/wps/portal/gos

http://www.nos.noaa.gov/dataexplorer/welcome.html

http://gulfsci.usgs.gov/

http://nationalmap.gov/

http://gis.sam.usace.army.mil/

http://www.lacoast.gov/

http://sabdata.cr.usgs.gov/index.asp

http://www.csc.noaa.gov/opis/

http://www3.mpa.gov/exploreinv/explore.aspx

Components

- **<u>Digital Library</u>** – identify data, programs and projects, reports and maps, models, web sites and services posters, by theme and key word query based on metadata records

- **<u>Geospatial Data Viewer</u>** – a distributed, web-services based portal to search for and view the full range of foundation geospatial data sets related to the six GoMex Alliance themes

- **<u>Retrieval of Distributed Data</u>** - access and download geospatial data from partner sites

- **<u>Value Added Application</u>** – e.g., Coastal Vulnerability Assessment Tool

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Possible Architecture
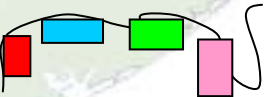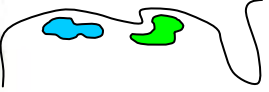
Existing Federal Data Portals

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Data Results	Pros / Cons	Example Site	Comments
Google results	**Pros:** already done **Cons**: poor results	Web searches	
Targeted Search of Hab Data Catalog	**Pros:** decent results **Cons:** no spatial context	NWRC metadata search PHINS prototype	
Single BBox(s) from Metadata	**Pros:** decent results / spatial context / fairly easy to implement **Cons**: single spatial plot	NCDDC Metadata	
Multiple BBoxes from Metadata	**Pros:** decent results / spatial context single spatial plot / fairly easy **Cons**: single spatial plot	NOS Data Explorer	
Cascading Map Services	**Pros:** good visual info / fairly easy **Cons:** Much data isn't in a map service / will have false gaps / will likely be very slow / dependent on remote map service rendering	PHINS prototype	
Local Data Collection	**Pros:** good visual info / local control of appearance / fast / easy data download **Cons:** hard to maintain/updates/false gaps	NCDDC Ecosystem	
Local data with crosswalk "Quilt"	**Pros:** provides consistent framework / retains original classification **Cons:** hard to maintain/ making some decisions for the user		
The Holy Grail	**Pros:** consistently derived / fully comprehensive **Cons:** resource intensive / very unlikely	If you find one – let us know	

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